

It is not believed that extensions of time or fees for net addition of claims are required beyond those that may otherwise be provided for in documents accompanying this paper. However, if additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. § 1.136(a), and any fees required therefor (including fees for net addition of claims) are hereby authorized to be charged to our Deposit Account No. 19-0036.

Amendments

In the Claims:

Please cancel claims 22-24, 26-32, 36, 37, 44-46, 48-54, 58, 59, 66, 69-71, and 86-102 without prejudice.

Also, please cancel non-elected claims 8, 19 and 20.

Please substitute the following claims 21, 43, 65, 79 and 80 for the pending claims 21, 43, 65, 79 and 80:

21. (Twice amended) An isolated polynucleotide comprising a nucleotide sequence encoding a glucuronyl C5-epimerase capable of converting D-glucuronic acid to L-iduronic acid, the amino acid sequence of which is at least 95% identical to a reference amino acid sequence selected from the group consisting of:

(a) amino acids 25 to 444 of SEQ ID NO: 13 and

(b) amino acids 1 to 444 of SEQ ID NO: 13.

43. (Thrice amended) An isolated polynucleotide encoding a glucuronyl C5-epimerase capable of converting D-glucuronic acid to L-iduronic acid and which hybridizes under the conditions of incubation at 65° C in a solution comprising: 6x SSC,

5x Denhardt's solution containing 0.1% SDS and 0.1 mg/ml denatured salmon sperm DNA, followed by washing in 2x SSC and 0.5% SDS at 42° C, to a polynucleotide encoding a polypeptide selected from the group consisting of:

- (a) amino acids 25 to 444 of SEQ ID NO: 13 and
- (b) amino acids 1 to 444 of SEQ ID NO: 13.

65. (Thrice amended) An isolated polynucleotide, or an isolated complementary polynucleotide, which encodes a polypeptide having glucuronyl C5-epimerase activity and capable of converting D-glucuronic acid to L-iduronic acid, and which hybridizes under the conditions of incubation at 65° C in a solution comprising: 6x SSC, 5x Denhardt's solution containing 0.1% SDS and 0.1 mg/ml denatured salmon sperm DNA, followed by washing in 2x SSC and 0.5% SDS at 42° C, to said isolated polynucleotide selected from the group consisting of:

- (a) nucleotides 73 to 1404 of SEQ ID NO: 12;
- (b) nucleotides 73 to 3085 of SEQ ID NO: 12;
- (c) nucleotides 145 to 1404 of SEQ ID NO: 12;
- (d) nucleotides 145 to 3085 of SEQ ID NO: 12;
- (e) nucleotides 1 to 1404 of SEQ ID NO: 12 and
- (f) nucleotides 1 to 3085 of SEQ ID NO: 12.

79. (Twice amended) The polynucleotide of claim 65, wherein said polynucleotide sequence is selected from a member of the group consisting of

- (a) nucleotides 73 to 1404 of SEQ ID NO: 12;
- (b) nucleotides 73 to 3085 of SEQ ID NO: 12;
- (c) nucleotides 145 to 1404 of SEQ ID NO: 12;

- (d) nucleotides 145 to 3085 of SEQ ID NO: 12;
- (e) nucleotides 1 to 1404 of SEQ ID NO: 12 and
- (f) nucleotides 1 to 3085 of SEQ ID NO: 12;

and wherein said polynucleotide encodes a fusion protein.

80. (Thrice amended) A polynucleotide which encodes an amino acid sequence which has a deletion of the N-terminal, C-terminal or internal regions of the amino acid sequence encoded by the polynucleotide of claim 65, and wherein said polynucleotide sequence is selected from a member of the group consisting of

- (a) nucleotides 73 to 1404 of SEQ ID NO: 12;
- (b) nucleotides 73 to 3085 of SEQ ID NO: 12;
- (c) nucleotides 145 to 1404 of SEQ ID NO: 12;
- (d) nucleotides 145 to 3085 of SEQ ID NO: 12;
- (e) nucleotides 1 to 1404 of SEQ ID NO: 12 and
- (f) nucleotides 1 to 3085 of SEQ ID NO: 12.

Please add the following claims:

114. An isolated polynucleotide comprising a nucleotide sequence encoding a polypeptide, comprising amino acids 25 to 444 of SEQ ID NO: 13.

115. An isolated polynucleotide, or an isolated complementary polynucleotide, comprising nucleotides 73 to 3085 of SEQ ID NO: 12.